

SEQUENCE LISTING

09/674330
584 (US) GPC/PTC 30 OCT 2000

<110> Ono Pharmaceutical Co., Ltd.

<120> A novel polypeptide, a cDNA encoding the polypeptide
and utilization thereof

<130> Q61536

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<150> PCT/JP99/02283

<151> 1999-04-28

<150> JP HEI 10-119731

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<160> 12

<170> PatentIn Ver. 2.1

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<223> Clone mouse A55 derived from Day 13 mouse
 embryonic heart

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Pro Pro Val Pro Ala Ser Asn Tyr Pro Thr Ile Ser Arg Pro Leu Val
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Cys Arg Phe Gly Tyr Gln Met Asp Glu Gly Asn Gln Cys Val Asp Val
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Cys Gln Gln Leu Cys Ala Asn Val Pro Gly Ser Tyr Ser Cys Thr Cys
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 205 210 215

Asp Gly Ile His Cys Ser Asp Met Asp Glu Cys Ser Phe Ser Glu Phe
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Leu Cys Gln His Glu Cys Val Asn Gln Pro Gly Ser Tyr Phe Cys Ser
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Cys Pro Pro Gly Tyr Val Leu Leu Asp Asp Asn Arg Ser Cys Gln Asp
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Ile Asn Glu Cys Glu His Arg Asn His Thr Cys Thr Ser Leu Gln Thr
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Cys Tyr Asn Leu Gln Gly Gly Phe Lys Cys Ile Asp Pro Ile Ser Cys
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365 370 375

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Cys Ile Asp Pro Ile Ser Cys Glu Glu Pro Tyr Leu Leu Ile Gly Glu
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Cys Val Asn Gln Pro Gly Ser Tyr Phe Cys Ser Cys Pro Pro Gly Tyr	
240 245 250	
gtc ctg ttg gat gat aac cga agc tgc cag gat atc aat gaa tgt gag	1149
Val Leu Leu Asp Asp Asn Arg Ser Cys Gln Asp Ile Asn Glu Cys Glu	
255 260 265 270	
cac cga aac cac acc tgt acc tca ctg cag act tgc tac aat cta caa	1197
His Arg Asn His Thr Cys Thr Ser Leu Gln Thr Cys Tyr Asn Leu Gln	
275 280 285	

ggg ggc ttc aaa tgt att gat ccc atc agc tgt gag gag cct tat ctg 1245
 Gly Gly Phe Lys Cys Ile Asp Pro Ile Ser Cys Glu Glu Pro Tyr Leu
 290 295 300

ctg att ggt gaa aac cgc tgt atg tgt cct gct gag cac acc agc tgc 1293
 Leu Ile Gly Glu Asn Arg Cys Met Cys Pro Ala Glu His Thr Ser Cys
 305 310 315

aga gac cag cca ttc acc atc ctg tat cgg gac atg gat gtg gtg tca 1341
 Arg Asp Gln Pro Phe Thr Ile Leu Tyr Arg Asp Met Asp Val Val Ser
 320 325 330

gga cgc tcc gtt cct gct gac atc ttc cag atg caa gca aca acc cga 1389
 Gly Arg Ser Val Pro Ala Asp Ile Phe Gln Met Gln Ala Thr Thr Arg
 335 340 345 350

tac cct ggt gcc tat tac att ttc cag atc aaa tct ggc aac gag ggt 1437
 Tyr Pro Gly Ala Tyr Tyr Ile Phe Gln Ile Lys Ser Gly Asn Glu Gly
 355 360 365

cga gag ttc tat atg cgg caa aca ggg cct atc agt gcc acc ctg gtg 1485
 Arg Glu Phe Tyr Met Arg Gln Thr Gly Pro Ile Ser Ala Thr Leu Val
 370 375 380

atg aca cgc ccc atc aaa ggg cct cgg gac atc cag ctg gac ttg gag 1533
 Met Thr Arg Pro Ile Lys Gly Pro Arg Asp Ile Gln Leu Asp Leu Glu
 385 390 395

atg atc act gtc aac act gtc atc aac ttc aga ggc agc tcc gtg atc 1581
 Met Ile Thr Val Asn Thr Val Ile Asn Phe Arg Gly Ser Ser Val Ile
 400 405 410

cga ctg cgg ata tat gtg tgc cag tat ccg ttc tgagcctctg gctaaggcct 1634
 Arg Leu Arg Ile Tyr Val Ser Gln Tyr Pro Phe
 415 420 425

ctgacactgc ctttcaccag caccgaggga cgggaggaga aaggaaacca gcaagaatga 1694

gagcgagaca gacattgcac ctttctgtct gaatatctcc tgggggcac accctagcat 1754

cttgacccat atctgtacta ttgcagatgg tcaactctgaa ggacaccctg ccctcagttc 1814

ctatgatgca gttatccaaa agtggttcac ttagccctg atatgaggtt gccagtgact 1874

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gggggatgag tcttcgaagg ttcaaaaagac tgagtggctt gctctcacct cttcctctcc 1994

ttctccatc tcttgctgca ttgctgcttt gcaaaagtc tcatgggctc gtgggaaatg 2054
 ctgggaatag ctagtgttgc tcttgcatgt tctgagaagg ctatgggaac acaccacagc 2114
 aggatcgaag gtttttatag agtctatttt aaaatcacat ctggtatttt cagcataaaa 2174
 gaaatttttag ttgtctttaa aatttgatg agtgtttaa cttttcttat tcattttgag 2234
 gctttctaaa gtggtagaat tctttccaaa ggctcagat acatgttatg ttcagtcttt 2294
 ccaacctcat cctttcctgc atcttagccc agtttttacg aagacctctt aatcatgctt 2354
 tnttaagagt ttttacccaa ctgcgttgga agacagaggt atccagactg attaaataat 2414
 tgaagaaaaa aaaaaa 2429

<210> 8
 <211> 461
 <212> PRT
 <213> Mus musculus
 <223> Clone mouse A55b derived from Day 13 mouse
 embryonic heart

<400> 8
 Met Gly Pro Arg Ser Phe Glu Pro Met His Ser Gly Leu Cys Arg Gln
 -35 -30 -25
 Arg Arg Met Ile Leu Thr Val Thr Ile Leu Ala Leu Trp Leu Pro His
 -20 -15 -10 -5
 Pro Gly Asn Ala Gln Gln Cys Thr Asn Gly Phe Asp Leu Asp Arg
 -1 1 5 10
 Gln Ser Gly Gln Cys Leu Asp Ile Asp Glu Cys Arg Thr Ile Pro Glu
 15 20 25
 Ala Cys Arg Gly Asp Met Met Cys Val Asn Gln Asn Gly Gly Tyr Leu
 30 35 40
 Cys Ile Pro Arg Thr Asn Pro Val Tyr Arg Gly Pro Tyr Ser Asn Pro
 45 50 55 60
 Tyr Ser Thr Ser Tyr Ser Gly Pro Tyr Pro Ala Ala Ala Pro Pro Val
 65 70 75
 Pro Ala Ser Asn Tyr Pro Thr Ile Ser Arg Pro Leu Val Cys Arg Phe
 80 85 90

Gly Tyr Gln Met Asp Glu Gly Asn Gln Cys Val Asp Val Asp Glu Cys
95 100 105

Ala Thr Asp Ser His Gln Cys Asn Pro Thr Gln Ile Cys Ile Asn Thr
110 115 120

Glu Gly Gly Tyr Thr Cys Ser Cys Thr Asp Gly Tyr Trp Leu Leu Glu
125 130 135 140

Gly Gln Cys Leu Asp Ile Asp Glu Cys Arg Tyr Gly Tyr Cys Gln Gln
145 150 155

Leu Cys Ala Asn Val Pro Gly Ser Tyr Ser Cys Thr Cys Asn Pro Gly
160 165 170

Phe Thr Leu Asn Asp Asp Gly Arg Ser Cys Gln Asp Val Asn Glu Cys
175 180 185

Glu Thr Glu Asn Pro Cys Val Gln Thr Cys Val Asn Thr Tyr Gly Ser
190 195 200

Phe Ile Cys Arg Cys Asp Pro Gly Tyr Glu Leu Glu Glu Asp Gly Ile
205 210 215 220

His Cys Ser Asp Met Asp Glu Cys Ser Phe Ser Glu Phe Leu Cys Gln
225 230 235

His Glu Cys Val Asn Gln Pro Gly Ser Tyr Phe Cys Ser Cys Pro Pro
240 245 250

Gly Tyr Val Leu Leu Asp Asp Asn Arg Ser Cys Gln Asp Ile Asn Glu
255 260 265

Cys Glu His Arg Asn His Thr Cys Thr Ser Leu Gln Thr Cys Tyr Asn
270 275 280

Leu Gln Gly Gly Phe Lys Cys Ile Asp Pro Ile Ser Cys Glu Glu Pro
285 290 295 300

Tyr Leu Leu Ile Gly Glu Asn Arg Cys Met Cys Pro Ala Glu His Thr
305 310 315

Ser Cys Arg Asp Gln Pro Phe Thr Ile Leu Tyr Arg Asp Met Asp Val
320 325 330

Val Ser Gly Arg Ser Val Pro Ala Asp Ile Phe Gln Met Gln Ala Thr
335 340 345

Thr Arg Tyr Pro Gly Ala Tyr Tyr Ile Phe Gln Ile Lys Ser Gly Asn
 350 355 360

Glu Gly Arg Glu Phe Tyr Met Arg Gln Thr Gly Pro Ile Ser Ala Thr
 365 370 375 380

Leu Val Met Thr Arg Pro Ile Lys Gly Pro Arg Asp Ile Gln Leu Asp
 385 390 395

Leu Glu Met Ile Thr Val Asn Thr Val Ile Asn Phe Arg Gly Ser Ser
 400 405 410

Val Ile Arg Leu Arg Ile Tyr Val Ser Gln Tyr Pro Phe
 415 420 425

210 9

211 423

212 PRT

213 Mus musculus

400 9

Gln Cys Thr Asn Gly Phe Asp Leu Asp Arg Gln Ser Gly Gln Cys Leu
 1 5 10 15

Asp Ile Asp Glu Cys Arg Thr Ile Pro Glu Ala Cys Arg Gly Asp Met
 20 25 30

Met Cys Val Asn Gln Asn Gly Gly Tyr Leu Cys Ile Pro Arg Thr Asn
 35 40 45

Pro Val Tyr Arg Gly Pro Tyr Ser Asn Pro Tyr Ser Thr Ser Tyr Ser
 50 55 60

Gly Pro Tyr Pro Ala Ala Ala Pro Pro Val Pro Ala Ser Asn Tyr Pro
 65 70 75 80

Thr Ile Ser Arg Pro Leu Val Cys Arg Phe Gly Tyr Gln Met Asp Glu
 85 90 95

Gly Asn Gln Cys Val Asp Val Asp Glu Cys Ala Thr Asp Ser His Gln
 100 105 110

Cys Asn Pro Thr Gln Ile Cys Ile Asn Thr Glu Gly Gly Tyr Thr Cys
 115 120 125

Ser Cys Thr Asp Gly Tyr Trp Leu Leu Glu Gly Gln Cys Leu Asp Ile
130 135 140

Asp Glu Cys Arg Tyr Gly Tyr Cys Gln Gln Leu Cys Ala Asn Val Pro
145 150 155 160

Gly Ser Tyr Ser Cys Thr Cys Asn Pro Gly Phe Thr Leu Asn Asp Asp
165 170 175

Gly Arg Ser Cys Gln Asp Val Asn Glu Cys Glu Thr Glu Asn Pro Cys
180 185 190

Val Gln Thr Cys Val Asn Thr Tyr Gly Ser Phe Ile Cys Arg Cys Asp
195 200 205

Pro Gly Tyr Glu Leu Glu Glu Asp Gly Ile His Cys Ser Asp Met Asp
210 215 220

Glu Cys Ser Phe Ser Glu Phe Leu Cys Gln His Glu Cys Val Asn Gln
225 230 235 240

Pro Gly Ser Tyr Phe Cys Ser Cys Pro Pro Gly Tyr Val Leu Leu Asp
245 250 255

Asp Asn Arg Ser Cys Gln Asp Ile Asn Glu Cys Glu His Arg Asn His
260 265 270

Thr Cys Thr Ser Leu Gln Thr Cys Tyr Asn Leu Gln Gly Gly Phe Lys
275 280 285

Cys Ile Asp Pro Ile Ser Cys Glu Glu Pro Tyr Leu Leu Ile Gly Glu
290 295 300

Asn Arg Cys Met Cys Pro Ala Glu His Thr Ser Cys Arg Asp Gln Pro
305 310 315 320

Phe Thr Ile Leu Tyr Arg Asp Met Asp Val Val Ser Gly Arg Ser Val
325 330 335

Pro Ala Asp Ile Phe Gln Met Gln Ala Thr Thr Arg Tyr Pro Gly Ala
340 345 350

Tyr Tyr Ile Phe Gln Ile Lys Ser Gly Asn Glu Gly Arg Glu Phe Tyr
355 360 365

Met Arg Gln Thr Gly Pro Ile Ser Ala Thr Leu Val Met Thr Arg Pro
370 375 380

Ile Lys Gly Pro Arg Asp Ile Gln Leu Asp Leu Glu Met Ile Thr Val
 385 390 395 400

Asn Thr Val Ile Asn Phe Arg Gly Ser Ser Val Ile Arg Leu Arg Ile
 405 410 415

Tyr Val Ser Gln Tyr Pro Phe
 420

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 <211> 1269
 <212> DNA
 <213> Mus musculus

<400> 10
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 tatttgtgca tccctcgaac caaccagtg tatcgagggc cttactcaaa tccctactct 180
 acatcctact caggcccata cccagcagcg gcccaccag taccagcttc caactacccc 240
 acgatttcaa ggccctctgt ctgccgcttt gggatcaga tggatgaagg caaccagtg 300
 gtggatgtgg acgagtgtgc aacagactca caccagtgc accctaccca gatctgtatc 360
 aacactgaag gaggttacac ctgctcctgc accgatgggt actggcttct ggaagggcag 420
 tgcctagata ttgatgaatg tcgctatggg tactgccagc agctctgtgc aaatgttcca 480
 ggatcctatt cctgtacatg caaccctggg ttcacctca acgacgatgg aaggctcttg 540
 caagatgtga acgagtgcga aactgagaat ccctgtgttc agacctgtgt caacacctat 600
 ggctctttca tctgccgctg tgaccagga tatgaacttg aggaagatgg cattcactgc 660
 agtgaatatg acgagtgcag cttctccgag ttctctgtc aacacgagt tgtgaaccag 720
 ccgggctcat acttctgtc gtgccctcca ggctacgtcc tgttgatga taaccgaagc 780
 tgcacagata tcaatgaatg tgagaccga aaccacacgt gtacctact gcagacttgc 840
 tacaatctac aagggggctt caaatgtatt gatcccatca gctgtgagga gccttatctg 900
 ctgattgggtg aaaaccgctg tatgtgtcct gctgagcaca ccagctgcag agaccagcca 960
 ttcaccatcc tgtatcggga catggatgtg gtgtcaggac gctccgttcc tgcctgacatc 1020
 ttccagatgc aagcaacaac ccgataccct ggtgcctatt acattttcca gatcaaactc 1080
 ggcaacgagg gtcgagagtt ctatatgcgg caaacagggc ctatcagtgc caccctgggtg 1140
 atgacacgcc ccatcaaagg gctcggggac atccagctgg acttggagat gatcactgtc 1200
 aacactgtca tcaacttcag aggcagctcc gtgatccgac tgcggatata tgtgtcgcag 1260
 taccgttc 1269

<210> 11
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 11

cgattgaatt ctagacctgc ctgagnnnn nnnnn

35

<210> 12

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: mA55 R1 Primer

<400> 12

cgtttgtagc ctgctgctgt gcattcc

27